

# CURRICULUM VITAE

## DR. AURANG ZEB

*Ex-Director & Chief Scientist,  
Nuclear Institute for Food & Agriculture (NIFA), Peshawar  
Pakistan Atomic Energy Commission (PAEC)*

*Ex-Professor,  
University Institute of Dietetics & Nutritional Sciences  
University of Lahore*

### Contact information

Mailing Address:	House #:126, Block: H-4 WAPDA Town Lahore
Cell	0333 9014498
Email	<a href="mailto:drzebkhattak@gmail.com">drzebkhattak@gmail.com</a> ,

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# CURRICULUM VITAE

## 1. Personal Info

<b>Name</b>	<b>DR. AURANG ZEB</b>
<b>Father's Name</b>	Mohammad Yousaf
<b>Date of birth</b>	August 17, 1957
<b>Place of birth</b>	Akora Khattak, Distt. Peshawar (Now Distt. Nowshera)
<b>Domicile</b>	Distt. Peshawar (Now Distt. Nowshera), NWFP (KPK)
<b>Service Record</b>	<ul style="list-style-type: none"> <li>i. Joined (NIFA) PAEC as Scientific Officer on 01.03.1984</li> <li>ii. Promoted to Senior Scientific Officer on 01.12.1990</li> <li>iii. Promoted to Principal Scientific Officer on 01.12.1998</li> <li>iv. Promoted to Deputy Chief Scientist on 01.12.2008</li> <li>v. Appointed as Head Technical Services Division (TSD) 24.10.2013</li> <li>vi. Promoted to Chief Scientist (SPS 12 Equivil : BPS 21)on 01.12.2015</li> <li>vii. Appointed as Head Food &amp; Nutrition Division (FND) 08-06-2016</li> <li>viii. Appointed as Director NIFA on 01.12.2016</li> <li>ix. Retired from PAEC service on 16-08-2017</li> <li>x. Professor at University Institute of Diet and Nutritional Sciences (UIDNS), Faculty of Allied Health Sciences (FAHS), University of Lahore as Professor from 02-04-2018 to 04-10-2020</li> </ul>
<b>Field of Specialization</b>	Agricultural Chemistry, Human Nutrition, Animal Nutrition
<b>Contact Info</b>	<p>Cell 0333 9014498</p> <p>E-mail <a href="mailto:drzebkhattak@gmail.com">drzebkhattak@gmail.com</a></p>

## 2. Academic Qualification

S.No.	Examination	Univ. /Board	Year	Division/ Grade	Subjects
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1.	Secondary School	Board of Intermediate & Secondary Education (BISE), Peshawar	1974	1 <sup>st</sup>	Maths, Physics, Chemistry, Technical and geometrical Drawing
2.	F. Sc.	BISE Peshawar	1976	2 <sup>nd</sup>	Physics, Chemistry, Biology
3.	B.Sc. (Hons.) Agri.	University of Peshawar	1980	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Advanced Biochemistry,</li> <li>• Advanced Analytical Chemistry</li> <li>• Advanced Organic Chemistry</li> <li>• Advanced Industrial Chemistry</li> <li>• Advanced Physical Chemistry,</li> </ul>
4.	M.Sc. (Hons.) Agri.	NWFP Agril. Univ. Peshawar	1983	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Biochemistry</li> <li>• Analytical Chemistry</li> <li>• Human Nutrition</li> <li>• Research Thesis on “Effect of different vegetables and proteins on lipid metabolism in female fayyumi chicks.</li> </ul>
5.	M.Sc. (Tropical Agriculture)	Georg-August Univ. Göttingen, F.R.Germany	1993	Grade 1.4 (Very Good)	<ul style="list-style-type: none"> <li>• Cultivated plants in the tropics and subtropics</li> <li>• Socio-economics of the rural development in developing countries</li> <li>• Plant nutrition in the tropics and subtropics</li> <li>• Animal nutrition in the tropics and subtropics</li> <li>• Agricultural techniques in the tropics and subtropics</li> <li>• Thesis on “Possibilities and limitations of feeding rapeseed meal to poultry”</li> </ul>
6.	Ph.D ( <i>Dr. sci. Agric</i> )	Georg-August Univ. Göttingen, F.R.Germany	1998	Grade 1 (Very Good)	<ul style="list-style-type: none"> <li>• Animal Nutrition and Physiology</li> <li>• Research Thesis on “Possibilities and limitations of feeding rapeseed meal to poultry”</li> </ul>
7.	Post Doc	Georg-August Univ. Göttingen, F.R.Germany	2001	-	Feeding Canola meal of Pakistani origin to poultry

### 3. *Distinctions*

1. Received a **GOLD MEDAL** from University of Peshawar for standing first in all the three BSc (Hons) Agriculture examinations
2. Received **PRESIDENT OF PAKISTAN AWARD** for securing 1<sup>st</sup> position in BSc (Hons) Agriculture final examination.
3. Received University Scholarship throughout BSc Hons and M.Sc. Hons. (Agric)
4. Received DAAD (Germany) Scholarship for MSc (Tropical Agriculture) at Georg-August University, Goettingen, Germany and subsequently for Dr. sci (Agric). at the same university.
5. Received DAAD (Germany) Scholarship (Re-Invitation) for Post Doc. Research at Georg-August University, Goettingen,
6. PAEC “PERFORNACE GOLD MEDAL” on Yaum-e-Takbeer 28 May 2008
7. Higher Education Commission (HEC) Approved PhD supervisor
8. Vice President of the All-Pakistan Society of Food Scientists and Technologists for the years 2000 to 2001, 2010 – to date.
9. Chairman, Pakistan Society of Food Scientists and Technologists (PSFST), Peshawar Chapter for the session 2002-2003.
10. Member Technical Sub-Committee for National Food Fortification Program, Ministry of Health, Government of Pakistan
11. President (acting) of the All-Pakistan Society of Food Scientists and Technologists since 2015 – to date
12. Member Technical Committee for “Food Consumption Trend Analysis using Household Integrated Economic Survey (HIES) Data 2001-2014, Ministry of Planning, Development and Reforms, Planning Commission (Nutrition Wing), Govt. Of Pakistan
13. Member Executive Council of the Academia & Research Network of Scaling-up Nutrition Movement, Ministry of Planning, Development & Reforms, Planning Commission, Nutrition Wing, Govt. of Pakistan

#### **4. Trainings Received**

1. **General Training Course on Food Irradiation**, organized by the International Facility for Food Irradiation Technology (IFFIT) at the International Agriculture Centre (IAC), and the State Institute for Quality Control of Agricultural Products (RIKILT), Wageningen, The Netherlands held from 17 August to 17 September, 1987.
2. Participated in, and successfully completed the six months **German Language intensive training course (PNdS)** at Goethe Institute Bremen, F R Germany from 1.4.1991 to 30.9.1991. This language course was a prerequisite for admission in a German University.
3. Training Conference on "Agricultural Marketing" at The Pakistan Academy for Rural Development, Peshawar held from 6-7 March 1996.
4. One day Training Workshop on "The Economic Evaluation of Research Projects" At ARI, Tarnab, January 21, 1995.
5. Five-day Training workshop on "Monitoring and Evaluation (M & E) of research projects" At ARI, Tarnab, June 10-14, 1995.
6. Three day training /workshop on "Population Education and Nutrition" jointly organized by FAO and National Agriculture Research Centre (NARC) Islamabad from Oct. 30 to Nov. 1, 1994.
7. Two day Training Workshop on "How to organize Conferences, Workshops and Seminars" at the Pakistan Academy for Rural Development, Peshawar on 14-15 Sept., 1999.
8. Specialized training course on poultry farming at Poultry Research Institute, Rawalpindi, from 1.9.98 to 9.9.1998.
9. Post Doc. Research on "Feeding Canola meal of Pakistani origin to poultry "April 18 to July 16, 2001 at Georg-August University, Goettingen,.Germany Under DAAD (Germany) Scholarship.
10. Regional Training Course on the "Cost Effectiveness of Food Fortification Program on Reduction of Micronutrient Malnutrition", At Hanoi, Vietnam, 13-17 October, 2003, Jointly Organized by National Institute of Nutrition Vietnam, and International Atomic Energy Agency (IAEA), Vienna, Austria
11. Two-day Training Workshop on "Ethics at work" at the Pakistan Academy for Rural Development, Peshawar, Jan 6-8, 2004.

12. One-day Training Workshop on “Afflattoxins and its implications for International Trade”, Organized by Veterinary Research Institute, Peshawar at Sarhad Chamber of Commerce and Industry, on 29.4.2004.
13. Two-day Training Workshop on “Role of NGO’s in Social and Economic Development “at the Pakistan Academy for Rural Development, Peshawar on October 4-5, 2004.
14. Two-Day Training Workshop on “Internal Quality Auditing” organized by Directorate of Quality Assurance in collaboration with Society General Surveillance (SGS), Lahore on September 19-20, 2005 at INMOL Hospital Lahore.
15. One day Training Workshop on “Gas chromatography and HPLC” on September 28, 2005 at Institute for Biotechnology and Genetic Engineering (IBGE), NWFP Agricultural University, Peshawar.
16. Three-Days Meeting/Workshop for “Consensus Building on Food Safety Policy” at National Institute of Health (NIH), Islamabad on Nov. 10-12, 2005
17. Two-Days Workshop for “Consensus Building on Food Legislation” at National Institute of Health (NIH), Islamabad on Dec. 30-31, 2005
18. Two-Day Training Workshop on “Internal Quality Auditing” organized by Directorate of Quality Assurance in collaboration with Moody International Certification (MIC), Lahore on May 23-24, 2006 at NIAB, Faisalabad.
19. One day Workshop on “Iron fortification of wheat flour in Pakistan” at Institute of Food Science and Technology, Agricultural University Faisalabad, on June 03, 2006
20. Regional Training Course on the “Efficacy of iron intervention Programs”, At Marriot Hotel, Islamabad, 25-28 June, 2006, Jointly Organized by Pakistan Atomic Energy Commission, and International Atomic Energy Agency (IAEA), Vienna, Austria
21. International Training Course on “Technology Transfer Policy and Industry Level Perspectives” 12-18 July 2006 at COMSTECH Islamabad
22. Six days Training for Food Establishment Personnel and different Consumer Groups on HACCP at Nutrition Division, National Institute of Health (NIH), Islamabad, held August 29 to September 3, 2006
23. Five-day Lead Auditor Course on ISO-9001-200 Quality Management System (IRCA-UK Registered) organized by Directorate of Quality



- Assurance (DQA) of PAEC in collaboration with Moody International Certification (MIC), November 5-11, 2006.
24. Training Course on “Lead poisoning with special reference to children and women health” National Institute of Health (NIH), Islamabad March 8-10, 2007
  25. Five days “Advance Quality Improvement Training Workshop on Six Sigma Green Belt” organized by Directorate of Quality Assurance (DQA) of PAEC in collaboration with Pakistan Institute of Quality Control (PQIC), Lahore, from 04-08 June, 2007 at DQA, Islamabad.
  26. Two-week training course on “Microsoft Office Access”, organized by IT Cell of NIFA, Peshawar 15-26 March 2010.
  27. “Advanced Management Course” at Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad 05-16 April 2010.
  28. International Training Course on “Social Services for All - for HRD in SAARC Region Priorities and Programmes” organized by SAARC Human Resource Centre (SHRDC), Islamabad, 18-28 April, 2011
  29. International Symposium on “Commercial Application of Irradiation Technology For Food Safety, Security & Global Trade” held at Thailand Institute of Nuclear Technology (TINT), Bangkok, Thailand, 20-24 February, 2012
  30. One week Training Course on “Project Management and its Tools” organized by Akhtar Hameed Khan- National Centre for Rural Development AHK-NCRD, Islamabad, 05-09 March, 2012
  31. One day training Seminar on “Uncertainty Measurement” at National Institute for Vacuum Science and Technology (NINVAST), National Centre for Physics, Quaid-e-Azam University, Islamabad on May 29, 2012
  32. One week training course on “Endnote for Management of References” held at NIFA, Peshawar on May 13-17, 2013.
  33. Two-Day Training Course on “Quality Implementation Program – Phase-2, Conducted by DQA, held at NIFA Peshawar on June 09-10, 2014
  34. Two Days Training of Master Trainers on Fortification and QA/QC of Edible Oil/Ghee, organized by The Food Fortification Programme (FFP) at Lahore, Feb. 15-16, 2017
  35. Four Days Training of Trainers on “Research Methodology” organized by SUNAR network of Scaling Up Nutrition Movement, Nutrition Cell, P & D, at University of Lahore 8-11 October, 2019

## **5. Training, Workshops, Seminars etc. Organized**

1. Organized National Seminar on Iron Fortification of roller milled wheat flour in Pakistan on the occasion of Launching Ceremony of the project, on 20 August 2002
2. As Chairman, Peshawar Chapter, Pakistan Society for Food Scientists and Technologists (PSFST). Jointly organized with Chairman Department of Food Science and Technology, NWFP. Agricultural University Peshawar, the “15th All Pakistan Food Science Conference, Nov. 30, 2004”
3. Organized jointly with Directorate of Quality Assurance (DQA) of PAEC a two days training course on “Food Safety Management” by Bureau Veritas, at NIFA, Peshawar, 21-22 may 2009
4. Organized jointly with Directorate of Quality Assurance (DQA) “Documentation Infrastructure Seminar” at NIFA on 13.2.2006.
5. Organized the 1<sup>st</sup> one day training course for Technicians in Public Health Laboratories on Analysis of iodized salt on 29-4-2011 on the request from National Salt Iodization Programme.
6. Organized 2<sup>nd</sup> one day training course for Technicians in Public Health Laboratories on Analysis of iodized salt on 19-01-2012 on the request from National Salt Iodization Programme.
7. As Leader of the “Food Technology and Nutrition” (FTN) group of Food Science Division, organized a 2 days Training Course on “Development of value added products from fruits and vegetables” at NIFA 6-7 June, 2012.
8. Organized 3<sup>rd</sup> one day training course for Technicians in Public Health Laboratories on Analysis of iodized salt on 17-04-2013 on the request from National Salt Iodization Programme.
9. Acted as Co-Organizer for Two-Day International Workshop on “Commercial Exploitation of Food Irradiation Technology in Pakistan – Potentials, Opportunities and Challenges” at PCSIR Laboratories Complex, Lahore, Pakistan, October 2-3, 2013
10. Organized as local coordinator, Quality Policy Implementation Program (QPIP-Phase 2) in collaboration with DQA, Islamabad at NIFA Peshawar 9-10 June, 2014
11. Organized as Group Leader of Food Technology & Nutrition (FTN) Group a “One day Workshop on “Preparation of value added products from fruits and vegetables” at NIFA Peshawar on 10-06-2014.

12. Organized the 4<sup>th</sup> one day training course for Technicians in Public Health Laboratories on “Detection of Iodine in Salt through Titration” at NIFA Peshawar on the request from Directorate General Public Health, Khyber Pukhtoonkhawa, Peshawar on 11-06-2014.
13. Delivered a lecture and demonstrated the working of Rapid Spot Test for iron fortified wheat flour in the One Day Training Workshop for Food Department AJ & K and Flour Mills Staff on “Wheat Flour fortification Process and QA/QC for Fortified Wheat Flour” organized by Micronutrient Initiative (MI) at Islamabad on 14<sup>th</sup> May, 2015
14. Acted as Resource Person in the Refresher Training on “Wheat Flour Fortification Process and QA/QC for Wheat Flour Fortification” One Day Training Workshop for Food Department AJ & K and Flour Mills Staff on organized by Micronutrient Initiative (MI) and AJK Food Department at Islamabad on 14<sup>th</sup> November, 2015
15. Organized as Group Leader of Food Technology & Nutrition (FTN) Group a One-day workshop on “Drying of Fruits and Vegetables” at NIFA on 20 May, 2015.
16. Organized as Head Food Science Division, a One-day workshop on “Promotion and development of environmental friendly bio-pesticides” at NIFA on February 10, 2016
17. Organized in collaboration with MI Pakistan the Dissemination Workshop of Research Study Stability of Iodine in Iodized Salt in Different Packing Materials under Different Climate Conditions, Marriott Hotel, Islamabad 1<sup>st</sup> March 2016.
18. Organized as Head Food Science Division, two courses for PAF officers on “Food Analysis” held 4-08 April 2013 and 11-15 April 2016 at NIFA Peshawar.
19. Organized as Head Food Science Division, a One-day workshop on “Drying of Fruits and Vegetables” at NIFA on 26 May, 2016.
20. Organized One Day Symposium on “Opportunities and Challenges on Halal Food Certification and Product Development” at NIFA Peshawar on January 06, 2016
21. Acted as Resource Person in the Refresher Training on “Wheat Flour Fortification Process and QA/QC for Wheat Flour Fortification” One Day Training Workshop for Food Department AJ & K and Flour Mills Staff on organized by Micronutrient Initiative (MI) and AJK Food Department at Islamabad on 29<sup>th</sup> August, 2016

22. Jointly organized with Pakistan Academy for Rural Development (PARAD) Peshawar, the 2-days Awareness Workshop on “Removal of astringency from persimmon fruit for market price and value addition/market life enhancement” September 20-21, 2016.
23. Organized as Head Food & Nutrition Division a one-day workshop on “Meal Ready to Eat” at NIFA on November 16, 2016.
24. Organized as Director a one day “National awareness seminar on pathological constraints to wheat production in Pakistan” at NIFA Peshawar on December 29, 2016.
25. Organized as Director NIFA, One day Workshop on Popularization of Mushroom Cultivation Technology at NIFA Peshawar on January 18, 2017
26. Organized as Director NIFA, One day National Workshop on Bioenergy Crops at NIFA, on February 02, 2017.
27. Organized as Director NIFA, One day Workshop on “Role of Zinc in Crop and Human Nutrition” February 21, 2017
28. Organized as Director NIFA, Farmer’s Day on March 2, 2017
29. Organized as Director NIFA, One-day Workshop on Integrated Nutrient Management of Plum and Off-Season Vegetables on March 21, 2017
30. Organized as Director NIFA, One day workshop on “Management Strategies for Insect Pest of Agricultural Importance with Special Emphasis on Bio-control Technology” on April 19, 2017
31. Organized as Director NIFA, One-day training on “Development of Fruits/Vegetables Based Products” on May 10, 2017
32. Organized as Director NIFA, National Seminar on “Foliar Wheat Diseases and their Management” on July 27, 2017
33. Organized as “Convener of FAHS Research Projects Committee” four “Project Formulation Workshops”, for the Faculty Members of FAHS, on 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> & 16<sup>th</sup> August, 2018 at UOL Auditorium I, *University of Lahore*

## 6. Publications

### A. International publications

1. Shah, A. B.; **Aurang Zeb**, Sattar, A. 1993: Effect of irradiation and other processing methods on the in-vitro digestibility of rapeseed proteins. J. Sci. Food. Agric. 61: 273-275
2. Sattar, A.; Shah, A. B.; **Aurang Zeb**. 1995: Biosynthesis of ascorbic acid in germinating rapeseed cultivars. Plant Food for Human Nutrition 47: 63 - 70.
3. **Aurang Zeb**, A. Sattat, A.B.Shah, and U.Ter Meulen 2000: Effect of pre- and post extraction autoclaving on the nutritional value of rapeseed meal for broiler chicks. Arch. für Geflügelkd. (European Poultry Science) 64 (1)19-23. (ISSN 0003-9098)
4. **Aurang Zeb**, A.Sattar and U. Ter Meulen 1999: Effect of feeding different levels of rapeseed meal on the performance of broiler chicks.Arch. für Geflügelkd.63 (2) : 77-81. ISBN 0003-9098.
5. **Aurang Zeb**, Abdus Sattar, A.B Shah, N. Bibi, G.Thinggaard and U.Ter Meulen (2001): Effects of dehulling and dry heating on the nutritional value of rapeseed meal for broiler chicks. Arch. für Geflügelkd. (European Poultry Science) 66 (4)164-168. (ISSN 0003-9098)
6. **Aurang Zeb**, A.Sattar A.B. Shah N. Bibi and U. Ter Meulen (2001): Effects of feeding increased levels of heat processed rapeseed meal on the performance of broiler chicks. Arch. für Geflügelkd. (European Poultry Science) 66 (4)158-163. (ISSN 0003-9098)
7. T. Ahmad A. Sattar, S. Atta, **Aurang Zeb**, A. Ahmad and S. A. Nagra (2002). Quality improvement of used fried rapeseed oil by treatment with activated charcoal and magnesium oxide. J. Acta Alimentaria 31: 289-295.
8. M.A. Chaudry, Amal Badshah, Nizakat Bibi, **Aurang Zeb**, Sajjad Ali And U. Ter Meulen (2004) Citrus waste utilization in poultry ration. Arch. für Geflügelkd. (European Poultry Science) 68, (5), 206-210.
9. **Aurang Zeb**, Nizakat Bibi Amal Badshah Khattak and U.Ter Meulen (2006): Effect of Dry and Wet Heat Treatments on Rapeseed Phenolics. Advances in Food Sciences 28 (1): 18-22
10. A. W. Khalil, **Aurang Zeb**, F. Mahmood, S. Tariq, A. B. Khattak And H. Shah (2007) Comparison of sprout quality characteristics of desi and

Kabuli type chickpea cultivars (*Cicer arietinum* L) LWT - Food Science and Technology, 40:937-945

11. Saima Tariq, **Aurang Zeb**, Fazal Mahmood, and Said Wahab (2006) Comparative storage studies on wheat flour prepared by different processing methods. I. Biochemical and microbiological attributes. *Advances in Food Sciences* 28 (4) :214-218.
12. **Aurang Zeb**, Saima Tariq, Abdul Jabbar Khan, Amal Badshah Khattak and Tila Mohammad (2006) Phytic acid contents and grain yield influenced by sowing time in wheat genotypes, *Advances in Food Sciences* 28 (4): 228-232.
13. Taufiq Ahmad, S. Atta, **Aurang Zeb**, A. B. Khattak, I. Ullah, and S. Parveen (2006) Efficacy of red palm oil to combat Vitamin A deficiency in Pakistani Population. *Advances in Food Sciences* 28 (3): 150-153.
14. Amal Badshah Khattak, **Aurang Zeb**, Maazuulah Khan, Nizakat Bibi, Ihsanullah, and Mohammad Saeed Khattak. (2007). Influence of germination techniques on sprout yield, biosynthesis of ascorbic acid and cook ability, in chickpea (*Cicer arietinum* L.). *Food Chemistry*. 103, (1), 115-120.
15. Amal Badshah Khattak, **Aurang Zeb**, Nizakat Bibi, Shahid Akbar Khalil, and Mohammad Saeed Khattak (2007). Influence of germination techniques on phytic acid and polyphenols contents of chickpea (*Cicer arietinum* L) sprouts. *Food Chemistry*, 104, 1074-1079.
16. Amal Badshah Khattak, Nizakat Bibi and **Aurang Zeb**, (2007). Quality assessment and consumers acceptability studies of newly evolved mungbean genotypes (*Vigna radiata* L.) *American journal Food Technology* 2(6): 536-542.
17. Bibi N, Khattak AB, **Aurang Zeb**, and Mehmood Z 2007: Irradiation and packaging food safety aspects and shelf life extension of solar dried garlic (*Allium sativum*) powder. *American Journal Food Technology* 3, (2), 118-126
18. Amal Badshah Khattak, Shahid Akbar Khalil, **Aurang Zeb**, Nizakat Bibi and Muhammad Saeed Khattak. (2008). Influence of germination techniques and irradiation on biosynthesis of ascorbic acid in chickpea seed (*Cicer arietinum* L.), *Advances in Food Sciences* 30(3), (A-28-022)

19. Amal Badshah Khattak, **Aurang Zeb**, Nizakat Bibi, and Mohammad Saeed Khattak. 2008. Effect of germination time and type of illumination on proximate composition of chickpea seed (*Cicer arietinum* L.). *American journal Food Technology* 3(1), 24-32.
20. Amal Badshah Khattak, **Aurang Zeb** and Nizakat Bibi (2008). Impact of germination time and type of illumination on carotenoid content, protein solubility and in-vitro protein digestibility of chickpea (*Cicer arietinum* L) sprouts. *Food chemistry*. 109:797-801
21. Azra Yasmin, **Aurang Zeb**, Abdul Wajid Khalil, Ghulam Mohi-ud-Din Paracha and Amal Badshah Khattak (2008) Effect of processing on anti-nutritional factors of red-kidney bean(*Phaseolus vulgaris*) grains. *Food Bioprocess Technol.* **1**, 415-419, DOI 10.1007/s11947-008-0125-3
22. Nizakat Bibi, Zahid Mehmood, **Aurang Zeb** (2009). Amylose contents of cereals; influence of household processing on the amylose contents of these foods, *Journal of Agricultural Science and Technology* 3(6) 1-5 ISSN 1939-1250, USA
23. Nizakat Bibi, Zahid Mehmood and **Aurang Zeb**. (2010). Amylose contents of vegetables; influence of household processing on the amylose contents of these foods, *Adv. Food Sci.*32(1) 20-24
24. Fazal Mahmood, **Aurang Zeb**, Amal Badshah Khattak, Yousaf Ali and Misal Khan (2010) The impact of genotype and substrate composition on the yield performance and quality characteristics of oyster mushrooms *Advances in Food Science*, 32 (2), 94-99
25. S. Adil Shah, **Aurang Zeb**, T. Masood, Nadia Noreen, S. J. Abbas, M. Samiullah, Abdul Alim and Asim Muhammad (2011) Effects of sprouting time on biochemical and nutritional qualities of Mungbean varieties *African J. Agric. Res.* 6(22), 5091-5098,
26. N. Bibi, Z. Mehmood, **Aurang Zeb**, M. Khan and R. A. Anis (2011). Effect of cooking on amylose contents of mungbean and chickpea varieties. *J. Food Sci. and Engg*, 1, 56-61.
27. Ijaz Ahmad, Fida Mohammad, Nasrullah Khan and **Aurang Zeb.**, 2010: Breeding of wheat for low phytate, *Int. J. Biol. Biotech.* 4(4): 397-401.
28. Nizakat Bibi, Amal Badshah Khattak and **Aurang Zeb** (2012) Selected phytochemicals content and physicochemical characteristics of citrus peel waste of Pakistani citrus cultivars, *Advances in Food Sciences* 34 (4): 2-6

29. Niamat Ullah, Iftikhar Alam, **Aurang Zeb**, Najma Iqbal and Alam Khan (2013) Proximate composition of the prepared dishes of district Mardan and Peshawar, *ARPN Journal of Agricultural and Biological Science* 8 (5):1-9
30. Ijaz Ahmad, Fida Mohammad, **Aurang Zeb**, Ijaz Rasool Noorka, Farhatullah, Sultan Akber Jadoon (2013) Determination and inheritance of phytic acid as marker in diverse genetic group of bread wheat, *American Journal of Molecular Biology*, 2013, 3, 158-164 AJMB doi:10.4236/ajmb.2013.33021
31. Taufiq Ahmad<sup>1</sup>, Tariq Masood, Zaib Hussain, Mohammad Sohail, **Aurang Zeb** and Ihsanullah (2014): Monitoring the oxidative stability of dietary oils during deep fat frying using chemical indexes and chemiluminescence technique *Advances in Food Sciences* 36 (1): 33-39
32. T. Masood, H. U. Shah and **Aurang Zeb**. (2014) Effect of sprouting time on proximate composition and ascorbic acid level of mung bean (*Vigna radiate* L.) and chickpea (*Cicer arietinum* L.) seeds, *The Journal of Animal & Plant Sciences*, 24(3):850-859
33. Maazullah Khan, Nizakat Bibi and **Aurang Zeb**. 2015. Optimization of Process Conditions for Pectin Extraction from Citrus Peel. *Science, Technology and Development* 34 (1): 9-15
34. Amir Hayat, Sabir Rehman, Naseem Asghar, Zahid Khan **Aurang Zeb**, Ibrar Ullah, Asghar Khan 2016: Sowing Date and Genotypes Effects on P-Phytate, Inorganic and Other Physiochemical Characteristics of Wheat Grain, *Imperial Journal of Interdisciplinary Research (IJIR)* 2 (10), 2454-1362
35. Fasiha Ahsan, Muhammad Imran, Shahid Bashir, Anis Ahmed Khalil, **Aurang Zeb**, Sehrish Sikander, Ahmed Bilal, Sana Sadaat, Tara Khursheed, Mudassir Mujahid, (2018): Muhammad Hanif Mughal Mediterranean Diet: Prevention of Chronic Diseases by Consuming Phenolic Compounds, *Journal of Environmental & Agricultural Sciences (JEAS)*. 2018. 16:13-23



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### **A. International Presentations**

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osteoporosis and Promoting Bone Mass in Asian Populations Using a Food Based Approach”

14. **Aurang Zeb**, 2011, “Effective Policy Formulations To Harness Brain Drain For Basic Education And Health In SAARC Member States” at International Training Course on “Social Services for All for HRD in SAARC Region Priorities and Programmes” organized by SAARC Human Resource Centre (SHRDC), Islamabad, 18-29 April, 2011
15. **Aurang Zeb**, 2011, “Food Safety Hazards” at International Conference on Food Safety organized jointly by Pakistan Society of Food Scientists and Technologists (PSFST) and The University of Faisalabad on July 12,, 2011
16. **Aurang Zeb**, 2011, “Food Safety situation in Public sector hospitals in Pakistan” at International Conference on Food Safety organized jointly by Pakistan Society of Food Scientists and Technologists (PSFST) and The University of Faisalabad on July 12,, 2011
17. **Aurang Zeb** 2012: “Health and nutrition situation of under five children in South Asia” Lecture at Training Course on “Millennium Development Goals in the SAARC Region: Progress, Prospects and way forward “at SAARC Human Resource Development Centre, (SHRDC) ISLAMABAD, 16-21 July, 2012
18. **Aurang Zeb** 2013: “Radiation Decontamination of Poultry Feed” Two-Day International Workshop on “Commercial Exploitation of Food Irradiation Technology in Pakistan – Potentials, Opportunities and Challenges” at PCSIR Laboratories Complex, Lahore, Pakistan, October 2-3, 2013
19. **Aurang Zeb** 2013: Low phytate wheat – a bio-fortification approach towards nutritional deficiencies in Pakistan. International Conference on “Emerging Issues in Nutrition and Food Safety National Institute of Food Science and Technology University of Agriculture, Faisalabad October 21-23, 2013
20. **Aurang Zeb** 2015: “Strengthening Adaptive Climate Change Strategies for Food Security through the Use of Food Irradiation” at First Project Coordination Meeting IAEA/RCA (RAS5071) at Swisshotel, Nai Lert Park in Bangkok, Thailand 16-20 March, 2015

## **B. National Presentations**

1. **Aurang Zeb**, MUSHTAQ, S.A., SATTAR, A., AND RASHID, H.U. 1994: Effect of gamma irradiation and cooking methods on the nutritional and organoleptic properties of two vegetables. Third All Pakistan Science Conf. Bara Gali, 11-15 Sept. 1994.

1. **Aurang Zeb**, 1994: Relationship between Nutrition and Population. Three day training /workshop on "Population Education and Nutrition" jointly organized by FAO and National Agriculture Research Centre Islamabad from Oct. 30 to Nov. 1, 1994.
2. Mohammad Wahid, S.A.Malik, A.Sattar and **Aurang Zeb**, 1994: Cytokinin changes in mushrooms due to storage and irradiation. Third All Pakistan Science Conf. Bara Gali, 11-15 Sept. 1994.
3. Wahid, M, Malik,S.A., Sattar,A., and **Aurang Zeb**, 1995: Research and development studies on mushrooms. Second International conference on "The Impact of Food Research on New Product Development, 28-31, Jan, 1995.
4. **Aurang Zeb**,, N.Bibi, and A.Sattar 1995 : Phytates and phenolics in heat treated rapeseed meal. Fourth National Symposium on Analytical and Environmental Chemistry, Bara Gali, August 27-30, 1995.
5. **Aurang Zeb**, A. Sattar and U. Ter Meulen 1996: Effect of different processing on some antinutrients and in-vitro digestibility of rapeseed protein. 7th All Pakistan Food Science Conference, organized by the Pakistan Society of Food Scientists and Technologists" held at Faisalabad, 18 December, 1996.
6. **Aurang Zeb**, And A.Sattar, 1997: Influence of irradiation and germination on single enzyme *in-vitro* digestibility of rapeseed protein. "4th International conference of the Pakistan Society of biochemistry and molecular biology" held at NWFP Agricultural University, Peshawar, on 7 - 10, 1997.
7. **Aurang Zeb**,, Taufiq Ahmed And Abdus Satta (1998) Nutritional & Physiological evaluation of Red Palm Oil (Carotino), 9<sup>th</sup> All Pakistan Conf. Pak. Soc. Food Sci. Tech., Agric. Univ. Faisalabad, 7th November 1998.
8. **Aurang Zeb**, F. Mahmood, Saima Tariq and Said Wahab (2002): Comparative Storage Studies on Flour Mill and Chakki Atta - Phytic Acid contents in Flour and Bread. 13<sup>th</sup> Annual Conference of the Pakistan Society of Food Scientists and Technologists, held 21 December, 2002, Lahore
9. **Aurang Zeb**, F. Mahmood, Sher Mohammad (2002): Comparison of two procedures for phytic acid determination in wheat and its products. 13<sup>th</sup> Annual Conference of the Pakistan Society of Food Scientists and Technologists, held 21 December, 2002, Lahore
10. Saima Tariq, **Aurang Zeb**, Fazal Mahmood, and Said Wahab (2004): Comparative storage studies on wheat flour prepared by different processing methods II. Effect on phytic acid contents in flour and bread. 14<sup>th</sup> All Pakistan

Food Science Conference, of the Pakistan Society of Food Scientists and Technologists (PSFST) Faisal Abad Jan. 12, 2004.

11. **Aurang Zeb**, Tahir Iqbal, Fazal Mahmood, and Alam Zeb (2004): Nutritional quality and storagability of gamma irradiated wheat flour. 14<sup>th</sup> All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists (PSFST) Faisal Abad Jan. 12, 2004.
12. **Aurang Zeb**,, S. Tariq and A. Jabbar (2004): Food based approaches for combating micronutrient deficiencies in Pakistan. 15<sup>th</sup> All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists at Peshawar on 30.11.2004.
13. Taufiq Ahmed, S. Atta, **Aurang Zeb**, and Ihsanullah (2004): Evaluation of Silybum marianum (milk Thistle) as potential source of edible oil and protein. 15<sup>th</sup> All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists at Peshawar on 30.11.2004.
14. Taufiq Ahmed, **Aurang Zeb**, S. Atta, 2006: Efficacy of red palm oil to combat vitamin A deficiency in Pakistani population. 16<sup>th</sup> All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists at Faisalabad on 25.01.2006
15. **Aurang Zeb**, 2006: Study design of the Efficacy Component of National project on Iron fortification of Roller Milled Wheat Flour in Pakistan” at the “Regional Training Course on the Efficacy of iron intervention Programs”, At Marriot Hotel, Islamabad, 25-28 June, 2006, Jointly Organized by Pakistan Atomic Energy Commission, and International Atomic Energy Agency (IAEA), Vienna, Austria
16. **Aurang Zeb**, Jabbar A, Mahmood F. 2007, Variability in seed phytic acid and its relationship with seed morphology in bread wheat (*Triticum aestivum* L) 18<sup>th</sup> All Pakistan Food Science Conference, University of Agriculture, Faisalabad, November 5, 2007
17. Ahmed T, Atta S, **Aurang Zeb**, Ihsanullah and Nagra SA 2007, Nutritional evaluation of red palm oil in comparison with other oils 18<sup>th</sup> All Pakistan Food Science Conference, University of Agriculture, Faisalabad, November 5, 2007
18. **Aurang Zeb**, (2007): Qualitative and Quantitative testing of fortified flour in “Orientation Workshop for laboratory professionals for Qualitative and quantitative testing of Iron in Fortified wheat flour” for National Wheat Flour Fortification Project (NWFFP) jointly organized by NIFA Peshawar and PINSTECH, Islamabad on 20-21 September 2007

19. **Aurang Zeb**, (2009): Calcium Nutrition and Prevalence of Osteoporosis in Pakistani Population, Seminar Delivered at NIFA Peshawar
20. **Aurang Zeb**, (2009): Iron fortification of wheat flour in Pakistan, technical aspects. Lecture delivered in “Consultative workshop on iron fortification legislation” held Peshawar on April 06, 2009.
21. **Aurang Zeb**, (2009): Iron fortification of wheat flour in Pakistan, technical aspects. Lecture delivered in “Consultative workshop on iron fortification legislation” held Karachi on 11.4.2009.
22. **Aurang Zeb**, (2009): Iron fortification of wheat flour in Pakistan, technical aspects. Lecture delivered in “Consultative workshop on iron fortification legislation” held Lahore on 18.4.2009.
23. **Aurang Zeb**, (2010): Iron fortification of wheat flour in Pakistan, Quality Issues/Current quality protocols. Lecture delivered in “National Legislative Meeting on National Wheat Flour Fortification Project” held Marriott Hotel on 27-28 May, .2010.
24. **Aurang Zeb**, (2010): “Creativity and Innovation”. Seminar delivered at Nuclear Institute for Food and Agriculture, (NIFA), 25 May, 2010.
25. **Aurang Zeb**, (2010): Food Engineering and Technology Section, Food Science Division, A Model for SMEs Presentation made before Member and DG, Biosciences at PAEC HQ on 05.5.2010.
26. **Aurang Zeb**, (2010) Concerns about Calcium Nutrition in Pakistan, International Conference On Recent Advances In Human Nutrition With Special Reference To Vulnerable Groups 22-25 February, 2010 National Institute of Food Science & Technology (NIFSAT), , University of Agriculture, Faisalabad.
27. **Aurang Zeb**, (2011) Presentation on Review and analysis of the course materials on “Infant and young Child Feeding – (IYCF) and nutrition in emergency (NIE)” for Masters and PhD classes at Review Analysis Meeting – UNICEF Training Workshop on “Infant and young Child Feeding – (IYCF) and nutrition in emergency (NIE) at NIFSAT University of Agriculture, Faisalabad –July 11, 2011
28. **Aurang Zeb**, (2012) Potential Researchable areas in the fields of Nutrition, Food Safety, Food Microbiology, Food Biotechnology and Quality Control” at One-Day workshop on Applied Nature Need Based Research Project of Food Industries” at National Institute of Food Science and Technology (NIFSAT) University of Agriculture, Faisalabad on 07 May, 2012



29. **Aurang Zeb**, (2012): “Millennium Development Goals - MDGs”. Seminar delivered at Nuclear Institute for Food and Agriculture, (NIFA), 13 September, 2012.
30. **Aurang Zeb** (2013): “A bio-fortification approach to eliminate micronutrient deficiencies” at On Day Symposium on “Applied Aspects of Health Sciences” organized by the Department of Biochemistry at Hazara University, Mansehra on May 21, 2013
31. **Aurang Zeb** (2013) : Development of Package of Technology for Poultry Feed Irradiation in Pakistan” PSF/NSLP/F-NIFA (82) at Pls Convention organized by Pakistan Science Foundation held Islamabad 11-12 June, 2013
32. **Aurang Zeb** (2014) Nutrition Clinic - Assessment of Nutritional Status, Seminar delivered at NIFA, January 30, 2014
33. **Aurang Zeb** (2014): Official Letter Writing, Lecture delivered in the “Two Weeks Training Course under four Quadrants (4Q) HRD Programme organized by Training Division, Pakistan Atomic Energy Commission at NIFA Peshawar April 21 – May 02, 2014.
34. **Aurang Zeb** (2016): “Stability of Iodine in Iodized Salt in Different Packing Materials under Different Climate Conditions” in the Project Dissemination Workshop organized by NIFA in collaboration with M/o NHSR&C and MI Pakistan at, Marriott Hotel, Islamabad March 1, 2016
35. **Aurang Zeb** (2016): Stability of Iodine in Iodized Salt in Different Packing Materials International Conference on “Global Trends in Safe & Healthy Food & Lyallpur Food & Poultry Products Festival” March 7-8, 2016 at GC University, Faisalabad
36. **Aurang Zeb** (2014): Official Letter Writing, Lecture delivered in the “Two Weeks Training Course under four Quadrants (4Q) HRD Programme organized by Training Division, Pakistan Atomic Energy Commission at IRNUM Peshawar June 02, 2014.
37. **Aurang Zeb** (2016): Stability of iodine in iodized salt in Pakistani conditions, Universal Salt Iodization Program Review Meeting, Ministry of Health Services, Regulations and Coordination, Govt. Of Pakistan at Bhurban, 13-15 October 2016
38. **Aurang Zeb** (2018): Nutritional Status of various segments of Pakistani population, One-Day workshop on “Hands on Training in micronutrients fortification for food industry”, 10th July 2018, at Nuclear Institute for Food & Agriculture (NIFA) Tarnab, Peshawar

39. **Aurang Zeb** (2018): Presentation on stability study and Karak Salt with solutions. At: Universal Salt Iodization Pakistan Program Annual Review and Sustainability Framework Meeting on 05-06 November, 2020 at Lahore

## 12. Popular Lectures Delivered

1. "Nutritional Evaluation of Foods" Lecture delivered in NIFA Training Courses on "Post graduate training course on use of nuclear and other advanced techniques in agricultural research, regularly held on annual basis since 1984 to 2016.
2. Principles of Nutrition, Awareness Lecture at PAF Base Kohat, April 12, 2012
3. Principles of Nutrition- (Part –I & II) in the 2 week Training Course on Food and Nutrition for Army Officers of ASC at NIFA July 1, 2012
4. "Poultry Feed Irradiation" For PhD students of the Department of Agricultural Chemistry, Agricultural University, Peshawar 04-12-2012
5. "Principles of Nutrition", One day Training Course for ASC Army Officers on 03-01-2013
6. "Micronutrients deficiency based diseases" One week Training Course for PAF Officers dated 07-11- January, 2013 (Batch I)
7. "Micronutrients deficiency based diseases" One week Training Course for PAF Officers dated 07-11- January, 2013 (Batch II)
8. Principles of Nutrition- (Part -I: "Macronutrients" One week Training Course for PAF Officers dated 06 to 10 January, 2014
9. Principles of Nutrition- (Part -II: "Micronutrients deficiency based diseases" One week Training Course for PAF Officers dated 06 to 10 January, 2014
10. "Principles of Nutrition", One day Training Course for ASC Army Officers on 18-08-2014
11. "Ethics, Conduct and Attitude at work", Lecture delivered in the Secretarial Training Course of PAEC held at NIFA December 8-12, 2014.
12. One Day Training Workshop for Food Department AJ & K and Flour Mills Staff on "Wheat Flour fortification Process and QA/QC for Fortified Wheat Flour" organized by Micronutrient Initiative (MI) at Islamabad on 14<sup>th</sup> May, 2015
13. Delivered 2 Lectures on Fruits and Vegetables Processing for value addition, as Resource person at the 3 day Training Course on "Orchard management and Food Processing" organized by Pakistan Academy for Rural Development, Peshawar on June 10-13, 2015.

14. "Control strategies for pre- and post-harvest losses in crops, fruits and vegetables" Specialized lectures (3) in the 3-days training course titled "Post-Harvest losses in crops, fruits and vegetables organized by Pakistan Academy for Rural Development (PARD), Peshawar October 06-08, 2015.
15. Popular lectures at 05 different location of the districts of Swat and Charsadda, in connection with popularization of the NIFA developed technology on "Astringency Removing Process from Persimmon fruits" October 12-22, 2015
16. Two lectures on "Principals of nutrition", delivered in, two courses organized for PAF officers on "Food Analysis" held 4-08 April 2013 and 11-15 April 2016 at NIFA Peshawar.
17. A lecture on "Obesity and Diabetes" delivered in the one-day National awareness seminar on popularization of stevia arranged by Plant Breeding and Genetics Division of NIFA on April 22, 2016
18. "Control strategies for pre- and post-harvest losses in crops, fruits and vegetables" Specialized lectures (3) in the 3-days training course titled "Post-Harvest losses in crops, fruits and vegetables organized by Pakistan Academy for Rural Development (PARD), Peshawar July 25-29, 2016.
19. "Removal of Astringency from persimmon fruit for commercial benefits" Radio Talk for Agri Extension Program "Kar Kila" of Radio Pakistan Peshawar on 22 August 2016 (Producer: Farhad Anwar)
20. "Persimmon fruit – nutritional and commercial significance" Specialized lecture in the 2- days Awareness Workshop on "Removal of astringency from persimmon fruit for market price and value addition/market life enhancement" organized by Pakistan Academy for Rural Development (PARD), Peshawar September 20-21, 2016.
21. "Creativity and innovation" Lecture delivered in NIFA Training Courses on "Post graduate training course on use of nuclear and other advanced techniques in agricultural research, regularly held on annual basis since 2010.
22. Linking Universities and the economy, for knowledge-based economy in "Project Formulation Workshops", for the Faculty Members of FAHS, on 7th, 8th & 9th August, 2018 at UOL Auditorium I, *University of Lahore*
23. Components and Format of Projects Funded by ORIC, PSF, HEC (NPRU, TDF etc.) and ALP/ILP in "Project Formulation Workshops", for the Faculty Members of FAHS, on 7th, 8th & 9th August, 2018 at UOL Auditorium I, *University of Lahore*

24. Common mistakes during preparation of Research Proposal at: Four Days Training of Trainers on "Research Methodology" organized by SUNAR network of Scaling Up Nutrition Movement, Nutrition Cell, P &D, at University of Lahore 8-11 October, 2019
25. "Malnutrition in Pakistan and its prevention" Media talk <https://youtu.be/vSsFSn87BuE>
26. "Need for Food Fortification in Pakistan" Lecture delivered at the World Food Day at GC University Faisalabad 16-10-2021
27. "Why fortify foods in Pakistan", Lecture delivered at National Nutritionists Meet (NNM) at Falattis Hotel, Lahore on October 30, 2021

### **13. Seminars, Conferences, Symposia Workshops Attended**

1. Attended "Outreach Planning Workshop at NWFP Agricultural University Peshawar held 2-4 March, 1987.
2. Attended scientific symposium on "Nutritional and Health Aspects of Palm Oil" Islamabad 2.6.1994.
3. Attended "Third All Pakistan Science Conference" held at Bara Gali, on 11-15 September, 1994.
4. Attended the "5th Annual General Meeting of the Pakistan Society of Food Scientists and Technologists" held at Peshawar, 22 December, 1994.
5. Attended the Fourth National Symposium on Analytical and Environmental Chemistry, Organized by the Department of Chemistry, University of Peshawar at Bara Gali, August 27-30, 1995
6. Attended the 6th annual meeting of "Pakistan Society of Food Scientists and Technologists" held December 20, 1995.
7. Attended the 7th All Pakistan Food Science Conference, organized by the Pakistan Society of Food Scientists and Technologists" held at Faisalabad, 18 December, 1996.
8. Attended and presented a research paper in the "4th International conference of the Pakistan Society of biochemistry and molecular biology" held at NWFP Agricultural University, Peshawar, on 7 - 10, 1997.
9. Tropentag" (Conference on Tropical Agriculture) held in Goettingen (Germany) from 03.12.1998 to 04.12.1998. Göttinger Beiträge zur Land und Forstwirtschaft in den Tropen und Subtropen (Germany).

10. Attended the Design Meeting on the Research Project entitled "Iron fortification of wheat flour-Atta" held Faisalabad 23-24 August, 1999, organized jointly by Nutrition Cell, Ministry of Planning and Development (P & D), Govt. of Pakistan, Micronutrient Initiative of Canada (MI) and UNICEF.
11. Attended the 10th All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists" held at Faisalabad, 1 December, 1999.
12. Attended and presented two papers in the 13th Annual Conference of the Pakistan Society of Food Scientists and Technologists, held 21 December, 2002, Lahore on the topics 1. Comparison of two procedures for phytic acid determination in wheat and its products and 2. Comparative Storage Studies on Flour Mill and Chakki Atta - Phytic Acid contents in Flour and Bread.
13. Two day National Executive Symposium on "Technologies Developed for Commercialization - Challenges and Opportunities" Organized by Pakistan Atomic Energy Commission (PAEC) at Pearl Continental Hotel, Peshawar, September 21-22, 2003.
14. Attended the 14th All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists at Faisal Abad on 12.1.2004.
15. Attended the XXII Symposium of International Vitamin A Consultative Group – IVACG on "Vitamin A and the Common Agenda for Micronutrients", Lima, Peru, 15-17 Nov. 2004
16. 2004 Symposium of International Nutritional Anemia Consultative Group – INACG on "Iron Deficiency in Early Life: Challenges and Progress" Lima, Peru, 18 Nov. 2004
17. 2004 Symposium of International Zinc Nutrition Consultative Group – IZINCG on "Moving Zinc into the Micronutrient Program Agenda" Lima, Peru, 19 Nov. 2004
18. Attended the 15th All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists at Peshawar on 30.11.2004.
19. Attended Workshop on National Nutrition Strategic Plan at PC-Hotel, Bhurban held 21-22 December, 2004.
20. Participated in the one-day Seminar on "Quality management and its significance in the present scenario", organized by Directorate of Quality Assurance (DQA) on May 10, 2005 at NIFA Peshawar

21. Participated in the one-day Seminar on “An introduction to ISO-17025 laboratory management standard”, organized jointly by Directorate of Quality Assurance (DQA) and Pakistan National Accreditation Council on June 13, 2005 at NIFA Peshawar
22. Participated in the First International Conference on “Environmentally Sustainable Development (ESDev 2005) at Comsats Institute of Information Technology Abbottabad, June 26-28, 2005
23. Participated in the “Two-Days Meeting/Workshop for Consensus Building on Food Safety Plan” at National Institute of Health, Islamabad on July 4-5, 2005
24. Participated as the “IAEA/RCA Project Coordination meeting of project on “Prevention of osteoporosis and promotion of bone mass in Asian populations using a food based approach” (RAS/6/041) dated 11 - 15 July, 2005 in Singapore”
25. Attended a one-day Awareness Seminar on “Commercialization of Food Irradiation” organized by PAEC, July 27, 2005, in Marriott Hotel Islamabad
26. Participated in the “Three-Days Meeting/Workshop for Consensus Building on Food Safety Policy” at National Institute of Health, Islamabad on Nov. 10-12, 2005
27. Participated in the “Two-Day Workshop for Consensus Building on Food Legislation” at National Institute of Health, Islamabad on Dec. 30-31, 2005. The workshop was organized by NIH, Ministry of Health and World Health Organization (WHO)
28. Attended the 16<sup>th</sup> All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists at Faisalabad on 25.01.2006.
29. Co-Chaired the second technical session of the 16th All Pakistan Food Science Conference, of the Pakistan Society of Food Scientists and Technologists at Faisalabad on 25.01.2006
30. Delivered a seminar on the “Coordinated research project between NIFA Peshawar (PAEC) and Nutrition Division, NIH, Islamabad on different aspects of food and nutrition research” in NIFA at the occasion of visit of Director (Agri. & Biotechnology), dated 15.05.2006.
31. Attended a 2-Day Training Workshop on “Internal Quality Auditing” organized by Directorate of Quality Assurance in collaboration with Mood International Certification (MIC), Lahore on May 23-24, 2006 at NIAB, Faisalabad.

32. Attended On day Workshop on “Iron fortification of wheat flour in Pakistan” at Institute of Food Science and Technology, Agricultural University Faisalabad, on June 03, 2006
33. Participated in the “Regulatory Affairs Conference – 2006” organized by Nestle Pakistan at Lahore University of Management Sciences (LUMS) Lahore, on September 14, 2006
34. Participated in the Seminar on “Maternal and child under nutrition in Pakistan : Priorities for Action, organized jointly by Pakistan Academy of Sciences and The Agha Khan University (Karachi), held September 28-29, 2006, Islamabad
35. Participated in the IAEA/RCA Project Progress Review meeting 15-17 January, 2007 in Thailand (IAEA Project No. RAS/6/041)
36. Organized “Orientation Workshop for laboratory professionals for Qualitative and quantitative testing of Iron in Fortified wheat flour” for National Wheat Flour Fortification Project (NWFFP) jointly organized with PINSTECH, Islamabad on 20-21 September 2007
37. Participated in the “Regulatory Affairs Conference – 2007” organized by Nestle Pakistan at Lahore, on October 30, 2007
38. Participated in the workshop on “National Consensus Building for Fortified Flour Quality Control Strategy” organized by Project Management Unit (PMU) of the National project on iron fortification of wheat flour, Nutrition Wing, Ministry of Health, Islamabad, 10<sup>th</sup> December, 2007.
39. Participated in the IAEA/RCA Final Project Progress Review meeting 12-16 October, 2008 in Dhaka, Bangladesh (IAEA Project No. RAS/6/041) on Preventing osteoporosis and Promoting Bone Mass in Asian Populations Using a Food Based Approach”
40. Participation in On day consultative workshop of USI/IDD partners/stakeholders for Review of USI Legislation, NWFP, held Peshawar, 27.03.2009
41. Attended the “Consultation meeting on Strategic Road Map and Re-organizing of S & T and IT in NWFP” organized by the Deptt. of Science and Technology, NWFP at Inter Con Inn, Peshawar 29 July 2009
42. “Consultative workshop on iron fortification legislation” Organized by Project Management Unit of National Wheat Flour Fortification Programme, Ministry of Health, Govt. of Pakistan, held Peshawar on 06.4.2009.

43. "Consultative workshop on iron fortification legislation" Organized by Project Management Unit of National Wheat Flour Fortification Programme, Ministry of Health, Govt. of Pakistan, held Karachi on 11.4.2009.
44. "Consultative workshop on iron fortification legislation" Organized by Project Management Unit of National Wheat Flour Fortification Programme, Ministry of Health, Govt. of Pakistan, held Lahore on 18.4.2009.
45. "National Legislative Meeting on National Wheat Flour Fortification Project" held Marriott Hotel, Karachi, held on 27-28 May, .2010
46. International Conference On Recent Advances In Human Nutrition With Special Reference To Vulnerable Groups 22-25 February, 2010 National Institute of Food science & Technology (NIFSAT), University of Agriculture, Faisalabad.
47. National Workshop on "Food Industry Needs Based Projects for Research in Academia" June 17, 2010, organized by National institute of Food Science & Technology (NIFSAT) University of Agriculture, Faisalabad
48. 19<sup>th</sup> All Pakistan Food Science Conference of the All Pakistan Society of Food Scientists and Technologists, Lahore, December, 13, 2010
49. International Symposium on Institutional Linkages for Agriculture Development in Pakistan, December 20-21, 2010, KPK Agril. University, Peshawar
50. Review Analysis Meeting – UNICEF Training Workshop on "Infant and young Child Feeding – (IYCF) and Nutrition In Emergency (NIE) at NIFSAT University of Agriculture, Faisalabad –July 11, 2011
51. International Conference on Food Safety organized jointly by Pakistan Society of Food Scientists and Technologists (PSFST) and The University of Faisalabad on July 12,, 2011
52. Stakeholders workshop for USAID projects "Pakistan Agriculture Value Chain Assessment" organized at PC Hotel, Peshawar by FINCON, USAID consultants, held, 09 August, 2011
53. Consultative Meeting on Development Programme 2011-12, organized by Directorate of Science and Technology (DoST), Government of Khyber Pakhtunkhwa, Peshawar on November 18, 2011
54. Provincial launching of National Nutrition Survey 2011 and Provincial Adoption of Pakistan Integrated Nutrition Strategy (PINS), Health Department of Health, Govt. of Khyber Pakhtunkhawa, Nov 22, 29, 2011



55. Attended a meeting chaired by Special Secretary Health for drafting the “Khyber Pakhtunkhwa Food Safety Act” at the Health Department, KPK Secretariat, Peshawar on December 28, 2011.
56. Attended a meeting chaired by Special Secretary Health for drafting the “Khyber Pakhtunkhwa Food Safety Act” at the Health Department, KPK Secretariat, Peshawar on January 07, 2012
57. Attended a meeting chaired by Special Secretary Health for drafting the “Khyber Pakhtunkhwa Food Safety Act” at the Health Department, KPK Secretariat, Peshawar on January 11, 2012
58. Attended two days workshop on “Regulatory Monitoring of Salt, Wheat Flour & Oil Fortification Programs in Pakistan” organized by Micronutrient Initiative (MI), Pakistan on 9-10 March, 2012 at Bhurban
59. Attended the International Symposium on “Commercial Application of Irradiation Technology For Food Safety, Security & Global Trade” held at Thailand Institute of Nuclear Technology (TINT), Bangkok, Thailand, 20-24 February, 2012
60. Attended workshop on “Applied nature need based research Project of Food Industries” at National Institute of Food Science and Technology (NIFSAT) University of Agriculture, Faisalabad on 07 May, 2012
61. Two-Day International Workshop on “Commercial Exploitation of Food Irradiation Technology in Pakistan – Potentials, Opportunities and Challenges” at PCSIR Laboratories Complex, Lahore, Pakistan, October 2-3, 2013
62. International Conference on “Emerging Issues in Nutrition and Food Safety National Institute of Food Science and Technology University of Agriculture, Faisalabad October 21-23, 2013
63. “Consultative Workshop on National Quality Policy”, at PC Lahore, organized by PCSIR, Lahore, in collaboration with UNIDO and European Union, held 2<sup>nd</sup> December, 2013
64. Acted as “Resource Person” for Group B at the 5<sup>th</sup> Farmer’s Convention at Pakistan Academy for Rural Development Peshawar held December 28-30, 2013.
65. Acted as subject Expert for Nutrition at the “Workshop on Curriculum Development for Nutrition, Halal Science and Hospitality management” at the Centre of Excellence for Nutrition and Dietetics at the Govt. College University, Faisalabad on Feb 25, 2014

66. National Curriculum Revision Committee (NCRC) – Final meeting in Food Science and Technology at HEC Regional Centre Peshawar, 12-14 May, 2014
67. Two Days International Conference on “Nutritional Therapies against Lifestyle Related Disorders” at National Institute of Food Science and Technology, University of Agriculture Faisalabad, May 29-30, 2014
68. International Symposium on “Technological and Nutritional Aspects of Value Added Dairy Products” 12-14 November, 2014 at National Institute of Food Science and Technology (NIFSAT) , University of Agriculture Faisalabad
69. Consultative Meeting to Review “Food Composition Table and Dietary Guidelines for Pakistan” Jointly organized by FAO and Ministry of Planning, Development & Reform Planning Commission (Nutrition Section) Islamabad 30th March, 2015
70. First Project Coordination Meeting IAEA/RCA (RAS5071) on “Strengthening Adaptive Climate Change Strategies for Food Security through the Use of Food Irradiation” 16-20 March, 2015 in Swissotel, Nai Lert Park, Bangkok, Thailand
71. Seminar on “Food Safety – Everybody’s Commitment” Organized by Nestle Pakistan and PCSIR Lahore 21-22 April 2015
72. One Day Training Workshop for Food Department AJ & K and Flour Mills Staff on “Wheat Flour fortification Process and QA/QC for Fortified Wheat Flour” organized by Micronutrient Initiative (MI) at Islamabad on 14<sup>th</sup> May, 2015
73. One Day Workshop “Establishment of Scaling Up Nutrition (SUN) Academia & Research Network” organized by Micronutrient Initiative (MI) at Islamabad on 15<sup>th</sup> May, 2015
74. One Day Seminar on “Climate Change and Multilateral Environmental Agreements (MEAs) organized by Climate Change Cell of the Environmental Protection Agency (EPA), Government of Khyber Pakhtunkhwa at Peshawar on May 21, 2015
75. Consultative Meeting on “Review of Food Composition Tables and Dietary Guidelines for Pakistan” organized by Ministry of Planning, Development and Reform (PD&R)/ Planning Commission and Food and Agriculture Organization (FAO) of United Nations at Islamabad 30<sup>th</sup> March, 2015.
76. Consultative Meeting on Framework for Dietary Guidelines for Pakistan and QA/QC procedures for National Project on Food Composition Tables,

- organized by Ministry of Planning, Development and Reform (PD&R)/ Planning Commission and Food and Agriculture Organization (FAO) of United Nations at Islamabad 18<sup>th</sup> December, 2015
77. International Conference on “Global Trends in Safe & Healthy Food & Lyallpur Food & Poultry Products Festival” March 7-8, 2016 at GC University, Faisalabad
  78. Attended and chaired one of the technical sessions in the International Conference on “Global Trends in Safe & Healthy Food & Lyallpur Food & Poultry Products Festival” March 7-8, 2016 at GC University, Faisalabad
  79. One day workshop on “Health and Nutrition- shaping a healthier nation” organized jointly by PCSIR Islamabad and Nestle Pakistan Ltd at Pakistan Academy of Sciences, May 11, 2016.
  80. Launch of Scaling Up Nutrition (SUN) Academia and Research Network Pakistan organized by Ministry of Planning and Development & Reforms, Planning Commission (Nutrition Section) at, May 30, 2016 Ramada Hotel, Islamabad
  81. 3<sup>rd</sup> SUN Self-Assessment Workshop organized by Ministry of Planning and Development & Reforms, Planning Commission (Nutrition Section) at, May 31, 2016 Serena Hotel, Islamabad
  82. National consultative workshop on Pakistan Multi-Sectoral Nutrition Strategy organized by Ministry of Planning and Development & Reforms, Planning Commission (Nutrition Section) at, June 01, 2016 Serena Hotel, Islamabad
  83. Universal Salt Iodization Program Review Meeting, Ministry of Health Services, Regulations and Coordination, Govt. Of Pakistan at Bhurban, 13-15 October 2016
  84. First Executive Council Meeting of Scaling Up Nutrition (SUN) Academia and Research Network, Pakistan, held at Islamabad August 26, 2016.
  85. Inception Meeting of the Technical Committee and Steering Committee for “Food Consumption Trend Analysis using Household Integrated Economic Survey (HIES) Data 2001-2014, Ministry of Planning, Development and Reforms, Planning Commission (Nutrition Wing), Govt. Of Pakistan on December 23, 2016 at P Block, Pakistan Secretariat, Islamabad
  86. Review and consensus building workshop on Pakistan Food Based Dietary Guidelines (PFBDGs), held December 9, 2016 Serena Hotel Islamabad

87. One-Day workshop on “Hands on Training in micronutrients fortification for food industry”, 10th July 2018, at Nuclear Institute for Food & Agriculture (NIFA) Tarnab, Peshawar
88. First Meeting of Technical Oversight Committee (ToC) for Fortification Assessment Coverage Toolkit (FACT) Survey (2017-18) Ministry of Planning, Development & Reform (MPDR) with technical support from Global Alliance for Improved Nutrition (GAIN) July 27, 2017 Islamabad
89. Second Meeting of the Meeting of the Technical Oversight Committee (ToC) for Fortification Assessment Coverage Toolkit (FACT) Survey (2017-18) Ministry of Planning, Development & Reform (MPDR) with technical support from Global Alliance for Improved Nutrition (GAIN) July 20, 2018 Islamabad
90. One Day Workshop on Curriculum Development for MS/PGD Scientific & Regulatory Affairs at Institute of Home & Food Sciences, Government College University, Faisalabad May 09, 2018
91. Launching of “Punjab Food Fortification Strategy 2018”, by Provincial Food Fortification Alliance and Punjab Food Department, at Flatties Hotel Lahore June 27, 2018
92. Universal Salt Iodization Pakistan Program Annual Review and Sustainability Framework Meeting on 05-06 November, 2020 at Lahore
93. National USI Review and Sustainability Framework Meeting on 29-30 November, 2021 at Lahore

#### 14. Funded Research Projects Undertaken

	Project Title	Duration	Total amount of Grant	Funding agency
1	Co-PI of the project on "Nutritional and physiological evaluation of red palm oil in comparison to other tropical oils and fats"	1996-1999	US\$ 24000	Palm oil Research Institute of Malaysia (PORIM)
2	Co-PI of the international Project on "Fortification of Vanaspati ghee with Red Palm Oil as natural source of Vitamin A"	2001-2002	US\$ 15,000	Malaysian Palm Oil Board
3	Principal Investigator of the stability and acceptability components of the project on Iron fortification of wheat flour	2002-2003	US\$ 15,000	Micronutrient Initiative (MI), Canada and Nutrition Section, P & D Division, Ministry of Planning, Govt. Of Pakistan
4	Principal Investigator of the Project on "Radiation decontamination of Poultry feed"	2002-2004	Rs. 200,000/-	Pakistan Science Foundation
5.	Co-Principal Investigator of Project on "Better utilization of food for healthy and productive life in Agriculture sector"	2004-2007	Rs. 2.278 Million	PARC-ALP
6.	Co-Principal Investigator of Project on "Screening and development of low phytate bread wheat mutants in Pakistan"	2004-Ongoing		IAEA CRP
	Team Member of IAEA RCA Project on "Monitoring of food fortification programmes using nuclear techniques"	2000-2003		IAEA RCA RAS07/014
7.	National Counterpart of Regional project on Prevention of Osteoporosis and Promotion of Bone Mass in Asian Populations Using a Food Based Approach	2005-2008		IAEA RCA RAS/6/041
8.	Co-PI of Project on "Mushroom cultivation and popularization as cottage industry in NWFP, Pakistan"	2004-7	1000,000	Pakistan Science Foundation
9.	PI of Coordinated research project between NIFA Peshawar (PAEC) and Nutrition Division, NIH, Islamabad on <ul style="list-style-type: none"> <li>➤ Nutritional enhancement of cereals and grain legumes through sprouting and its utilization as food</li> <li>➤ Amylose contents of different food commodities; influence of household processing on the amylose contents of these foods</li> <li>➤ Estimation of goitrogenous substances in foods and their relationship with the prevalence of goiter in Pakistani population</li> </ul>	2006-7	1,228,000	Ministry of Health/National Institute of Health, Islamabad
10.	Co PI of Assessment of Toxic Metals in Agriculture Products and their Relation with Nutritional Status in Pakistan	2008-11		ALP, PARC
11	PI of Development of package of technology for poultry feed irradiation in Pakistan	2010	2,000,000	Pakistan Science Foundation
12	Team Member of Project on "Use of Irradiation for shelf stable sterile food for immuno-compromised patients and other specific target groups"	2010	€ 7100	IAEA CRP

13	Co-PI of project on Development of Market Life Enhancement Technology of Persimmon and its Dissemination to Growers	2012-2014	Rs.4.737 million	ALP, PARC
14	Group Leader for Survey of iodine contents of iodized salt in Pakistan	2011	150,000	USI/IDD/MI Pakistan
15	Group Leader for Urinary iodine contents of inhabitants of iodized salt intervention area	2011	340,000	Save the Children, Pakistan
16	Group Leader for Preparation of Iodine Rapid Test Kit	2011	992,000	USI/IDD/MI Pakistan
17	Country Counterpart for IAEA RCA on "Strengthening Adaptive Climate Change Strategies for Food Security through the Use of Food Irradiation"	2015-19		IAEA RCA RAS5071
18	Principle Investigator of MI funded research project "Stability of iodine in iodized salt in different packing materials under different climatic conditions"	2014 - 15	7,293,660	Micronutrient Initiative (MI)
19	Group Leader for Preparation of Iron Spot Test Kits for fortified flour	2015	289,000	Micronutrient Initiative (MI)
20	Group Leader for Preparation of Rapid Spot Test Kit for detection of fortified wheat flour	2015	200,000	Global Alliance for Improved Nutrition (GAIN)
21	Development of spot test kit for detection of vitamin A in edible oil and ghee	2016-17	-	Initially for GAIN
22	Team Lead of the QA/QC component of GAIN funded national project on "Ensuring quality fortification within food distribution networks for vulnerable populations during/post covid in Pakistan"	2021 – 22		Global Alliance for Improved Nutrition (GAIN) and GCUF

## 15. Students supervised (As Co-Supervisor/Member)

### A. Ph D

S.No	Name of Student	Univ./Department	Year	Title
1.	Said Wahab Reg. No. 94-ag-1570	Department of Food Technology, Agri. Univ., Faisalabad	2004	Nutritional And Biochemical Evaluation Of Some Wheat Varieties Grown In N.W.F.P In Relation To Their End Use
2.	Tariq Masood 99-Agr-U-6078	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	2013	Nutritional and organoleptic properties of chickpea ( <i>cicer arietinum</i> l) and mung bean ( <i>vigna radiata</i> l) as affected by sprouting
3.	M Ijaz 98 Agr-U-5711 (Session 2007)	Department of Plan breeding and Genetics, NWFP, Agril. Univ., Peshawar	2011	Inheritance of Phytic acid and other agronomic traits in bread wheat
4.	Saleem Ullah	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	2011	Aspergillus flavus infection and aflatoxin contamination of maize and peanut cultivars grown in Khyber Pakhtunkhwa
5.	Muhammad Ashfaq ur Rahman 2003-agr-u-10410 (2012-15)	Department of Human Nutrition, Khyber Pakhtunkhwa, Agril. Univ., Peshawar	On-going	Effect of high caloric protein, iron, zinc and vitamin A diet on health and nutritional status of Tuberculosis patients

## B. MSc, MSc (Hons) Agric., MPhil

1.	Mohammad Shaheen	Department of Food Science and Technology, University College of Rawlakot Azad Jammu and Kashmir	MSc	1999	Protein fractionation of some wheat varieties grown in NWFP
2.	Tahir Iqbal 2000-Agr-U-5380	Department of Food Science and Technology, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2003	Nutritional Quality and Storage Stability of Gamma Irradiated Wheat Flour
3.	Saima Tariq 97-Agr-U-5375	Department of Food Science and Technology, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2003	Comparative studies on storage stability and nutritional qualities of wheat flours prepared by chakki and flour mill
4.	Riazullah 98-K-5502	Department of Chemistry, Govt. College, Kohat	MSc	2002	Phytic acid determination in wheat and its products
5.	Sher Mohammad 97-N-5509	Department of Chemistry, Govt. College, Kohat	MSc	2002	Comparison of two procedures for phytic acid determination in wheat and its products
6.	Tariq Masood 99-Agr-U-6078	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2004	Effect of Genotype, and fertilizer application on the phytic acid contents (%) of wheat and triticale
7.	Abdul Wajid Khalil 99-Agr-U-5988	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2003-4	Effects of Sprouting Time on Biochemical and Nutritional Qualities of Chickpea Varieties
8.	Niamat Ullah 2000-Agr-U-6662	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2006	Composition of prepared food of agricultural families
9.	Nadia Noreen 2000-Agr-U-6583	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2006	Variation in chemical constituents of rice during traditional cooking
10.	Miss Hina Khurshid Regd No. 2002-HEco 3628	Department of Human Nutrition, College of Home Economics, University of Peshawar	MSc	2007-08	Effect of domestic processings (boiling, soaking, pressure cooking) on phytic acid content of pulses of legumes
11.	Miss Rabia Sana Regd No. 2002-HEco 3727	Department of Human Nutrition, College of Home Economics, University of Peshawar	MSc	2007-08	Effect of domestic processings (leavening, cooking, frying, baking) on phytic acid content of wheat and wheat products
12.	M. S Adil Shah	Department of Human Nutrition, College of Home Economics, University of Peshawar	MSc (Hons)	2008-09	Calcium fortification of wheat flour
13.	Maqsood 2001-Agr-4-8031	Department of Human Nutrition, College of Home Economics, University of Peshawar	MSc (Hons)	2007-08	Biochemical and nutritional evaluation of wheat flour supplemented with mash and mungbean
14.	Zakir Ullah	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2009	Effects of soaking and boiling on nutrient retention and phytic acid content of chickpea and mungbean and mashbean
15.	Farman Alam 2003-AgrU-10304	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	MSc (Hons)	2007-2009	Fatty acid profile, nutritional and anti-nutritional components of brassica cultivars grown in NWFP.
16.	Kifayatullah	Deptt. Biochemistry, Hazara University, Mansehra	M.Phil	2009-2010	Biochemical effects of radiation decontamination of poultry feed

17.	Nodia Shujaat	Deptt. Biochemistry, Hazara University, Mansehra	M.Phil	2011-12	Nutrient intake of women belonging to rural population in district Mansehra
18.	Muhammad Israr	Department of Human Nutrition, Khyber Pakhtunkhwa, Agril. Univ., Peshawar	MSc (Hons)	2012-2013	Nutrient intake of women in rural population of District Nowshera
19.	Zulqarnain	Department of Agricultural Chemistry, KPK, Agril. Univ., Peshawar	MSc (Hons)	2012	Storage behavior of irradiation decontaminated poultry feed in different packaging materials
20.	Shah Mulk	Deptt. Biochemistry, Hazara University, Mansehra	M.Phil	2014	Effects of gamma radiation on the quality and storage stability of shaver eggs
21.	Khalid Usman	Deptt. Biochemistry, Hazara University, Mansehra	M.Phil	2015	Quality Response of Desi eggs to gamma irradiation
22.	Yaseen Ahmad	Deptt. Biochemistry, Hazara University, Mansehra	MSc	2013	Variability in phytic acid contents of different wheat genotypes and its relationship with different physico-chemical characters
23.	Midrarullah	Department of Veterinary Sciences, KP, Agril. Univ., Peshawar	MSc (Hons)	2013-15	Effect of Gamma radiated feed on biological performance of Broiler
24.	Aamir Hayat	Deptt. Biochemistry, Hazara University, Mansehra	M.Phil	2014	Sowing date and genotype effects on phytic acid, inorganic P and other physico-chemical characteristics of wheat grain
25.	Sadaf Naurin	Department of Human Nutrition, Khyber Pakhtunkhwa, Agril. Univ., Peshawar	MSc (Hons)	2014	Phytic acid contents and its relationship with other physico-chemical characteristics in cereals and legumes
26.	Rab Nawaz	Deptt. Chemistry, Peshawar University, Peshawar	M.Phil	2012	Effect of Genotype, Location and Nitrogen Application on Phytic Acid, and Inorganic Phosphorus Contents in Wheat
27.	Hirra Tanvir 2008-Agr-U-166687	Department of Human Nutrition, Khyber Pakhtunkhwa, Agril. Univ., Peshawar	MSc (Hons)	2014	Field Efficiency of the Buffer Based Rapid Test Kits for Iodine
28.	Afaf Shuja	Department of Human Nutrition, Khyber Pakhtunkhwa, Agril. Univ., Peshawar	MSc (Hons)	2013-2015	Preparation, nutritional and organoleptic evaluation of zinc fortified cookies
29.	Ms. Kulsoom Siddiq	Department of Human Nutrition, The University of Agriculture, Peshawar	MSc (Hons)	2015	Stability of iodine in differently iodized salt
30.	Yaseen Ahmad	Deptt. Biochemistry, Hazara University, Mansehra	M.Phil.	2015-	Stability of iodine in iodized salt of different types in different packaging materials stored.
31.	Ms. Seemab Ali	Deptt. Biochemistry, Hazara University, Mansehra	M.Phil.	2015-	Characterization and evaluation of pollutants in late season vegetables of Hazara Division
32.	Muhammad Ishaq Roll No. 36309	Faculty of Health Sciences, Dept. Biochemistry Hazara University	M.Phil.	2017	Heavy metals and pesticide residues uptake in tomato crop grown on civic effluent and synthetic agrochemicals
33.	Ms. Arooj Saeed	UIDNS, UOL	M.Phil.,	2017-19	Acceptability And Effectiveness Of Low Glycemic Index Cookies Containing Almonds And



					Raisins For Diabetic Patients
34.	Ms. Madiha Batool PHND02171005	UIDNS, UOL	M.Phil.,	2017-19	Therapeutic Effect of Berberis Vulgaris Fruit-Extract Based Drink on The Serum Glucose Level In Diabetic Rats
35.	Ms. Palwasha Khalil PHND02173003	UIDNS, UOL	M.Phil.,	2018-19	Effects of bread supplemented with Nigella sativa oil or extract on blood glucose level and lipid profile in alloxan induced diabetic rats
36.	Ms. Naila Iqbal PHND02173012	UIDNS, UOL	M.Phil.,	2018-19	Effect Of Pomegranate Pericarp On The Serum Glucose Level And Lipid Profile Of Hyperglycemic Rats
37.	Mudassir Safdar PHND02173008	UIDNS, UOL	M.Phil.,	2018-19	Effect Of Fortified Wheat Flour On Anaemia Status In Hostel Girls

### C. BSc (Hons), and Diploma - Internship

S.No	Name of Students	Department/University	Degree	Year	Topic
1.	M. Samiullah	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	BSc (Hons)	2002	Standardizing procedures for phytic acid determination in wheat.
2.	Abdul Wajid Khalil	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	BSc (Hons)	2003	Biochemical effects of radiation decontamination of poultry feed
3.	Mohammad Israr	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	BSc (Hons)	2003	Genetic influences on the phytic acid and iron contents of wheat
4.	Niamat Ullah	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	BSc (Hons)	2003	Environmental influences on the phytic acid and iron contents of wheat
5.	Faiza Javed	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	BSc (Hons)	2003	Determination of iron in food Samples
6.	Nauman Ahmed	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	BSc (Hons)	2003	Determination of iron in food Samples
7.	Tariq Masood	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	BSc (Hons)	2003	Mineral solubility in radiation decontaminated poultry feed
8.	Ruqiya Sajjad	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2004	In-vitro protein digestibility in low phytate wheat genotypes
9.	Mohammad Hussain	Department of Human Nutrition, NWFP, Agril.	B.Sc. Hons.	2004	Radiation Decontamination of

		Univ., Peshawar			Poultry feed – Effects on in-vitro protein digestibility
10.	Miss. Shazia Fazal	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2006	Phytic Acid contents in wheat Lines
11.	Miss. Rafia Khattak	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2006	Anthropometric Status of NIFA employees
12.	Mr. Imran Anwar	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2006	Vitamin a contents of prepared dishes of Kohat and Bannu districts
13.	Mr. Ashfaq ur Rahman	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2006	Data computerization of food composition tables and the creation of Nutrient and Energy Calculator its application for 24 hours memory recall questionnaire
14.	Mr. S. Adil Shah	Department of Human Nutrition, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2006	Enhancement of nutritional value of mungbeans through sprouting
15.	Miss. Bibi Sughra	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2006	Training on Lab techniques used in the Nutrition Labs.
16.	Quratul Ain	Deptt: Food Technology, Arid Agric. University, Rawalpindi	B.Sc. Hons.	2008	<ul style="list-style-type: none"> <li>• Comparison of different procedures for determination of fortification iron in wheat</li> <li>• Training on Lab techniques used in the Nutrition Labs.</li> </ul>
17.	Mr. Abdul Majid	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2008	Iron fortification of bakery products
18.	Ubairah	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2008	Quality evaluation of eggs from different sources
19.	Nayab Iqbal Farooqi	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2008	Variability and relationship among quality parameters of iron fortified wheat flours from different sources
20.	Sadaf Qasim Shah	Department of Agricultural Chemistry, NWFP, Agril. Univ., Peshawar	B.Sc. Hons.	2008	Calcium fortification of wheat flour
21.	M. Farooq	Dept. Biochemistry, Hazara University, Mansehra	MSc	2008	Analytical Techniques in Nutrition
22.	Basit Khan	Dept. Biochemistry, Hazara University, Mansehra	MSc	2008	Analytical Techniques in Nutrition

23.	Sardar Ali	Dept. Biochemistry, Hazara University, Mansehra	MSc	2008	Analytical Techniques in Nutrition
24.	Rashidullah	Govt Collge of Technology, Nowshera	DAE	2009	Analytical Techniques in Nutrition
25.	Tabeen et-al	UIDNS, FAHS, UOL	DDNS	2019	Association Of Insomnia With Comorbidities Among Patients Visiting Tertiary Care Hospitals Lahore
26.	Maryam et al	UIDNS, FAHS, UOL	DDNS	2019	Effect of citrulus colocynthis seed powder on diabetic patients visiting Jinnah Hospital, Lahore
27.	Fatima et al	UIDNS, FAHS, UOL	DDNS	2020	Assessment of nutritional status of gastroesophegual reflux disease patients visiting Mrs. Ganga Ram Hospital Lahore

## 16. ***Labs/Research Groups Established***

- Initiated Nutrition Group at the Food Science Division of NIFA Peshawar (1988)
- Established “Iodine Reference Lab at the Nutrition Group with financial support from Micronutrient Initiative (MI) Pakistan (2013)
- Established Food Technology & Nutrition Group at the Food Science Division at NIFA (2014)

## 17. ***Membership of Scientific Societies/Committees***

- Life Member of Pakistan Society of Food Scientists and Technologists (PSFST)
- Life Member of Pakistan Nuclear Society (PNS)
- Life Member of The Chemical Society of Pakistan

## 18. ***Administrative Jobs***

- Director NIFA 01-12- 2016 to 16-08-2017
- Head Food Science Division (08-06-2016 to 30-11-2016)
- Head Technical Services Division at NIFA (24-10-2013 to 07-06-2013)
- Group Leader Nutrition 1988 to 2010
- Group Leader Food Technology & Nutrition (2010 - 2013)
- Convenor Tender Opening and Purchase Committee of NIFA

- Member and subsequently Convenor of Departmental Promotion Committee (DPC) of NIFA.
- In charge Complaint Cell of NIFA
- Chairman Enquiry Committees at different occasions
- Member of selection committees for induction of personnel of different categories in NIFA
- Chairman Registration Committee on the occasion of Annual Advanced Training Courses and other events held at NIFA
- Interface Person (Management Representative – MR) of NIFA for introduction and implementation of Quality Management System QMS (ISO 9000 certification) with the help of Directorate of Quality Assurance
- Member Quality Steering Committee for establishing of Quality Management System at NIFA
- Member Governing Body (GB) of NIFA
- Member “Research Papers/Technical Reports Committee” of NIFA
- Convener “Publications Review Committee” of NIFA
- Member Ethical Committee of NIFA
- Member Research Planning Committee (RPC) of NIFA
- In charge NIFA Welfare Fund

## **19. Academic Contributions**

- Supervisor/Co-supervisor/member for thesis research of
  - 5 Ph.D. students
  - 37 M.Sc./MPhil/M.Sc. (Hons) students
  - 24 B.Sc. internship students
- Member Council for Graduate Studies and Research (CGSR), PIEAS, Islamabad
- Member Graduate Studies and Research Board, University of Agriculture, Faisalabad (During tenure as Director NIFA)
- Member Board of studies Department of Human Nutrition, Agricultural University, Peshawar
- Member Board of studies Department of Agricultural Chemistry, Agricultural University, Peshawar
- Member Board of Studies, Department of Biochemistry, Hazara University, Mansehra
- Member Board of Studies, Institute of Food Science and Nutrition, Sargodha University

- Paper setter for MSc (Nutrition) paper for College of Home Economics, University of Peshawar
- Paper setter and papers evaluator for Written test (Nutrition and Food) for induction of JS/SS in NIAB, Faisalabad, September, 2006
- Member Selection Board for induction of Lecturer, Assistant Professors and Associate Professors at The Agricultural University, Peshawar
- Member Selection Board for induction of Lecturer, Assistant Professors and Associate Professors at Haripur University
- HEC Approved PhD supervisor
- Reviewer of Text Book on Nutrition for Class IX and X Home Economics courses of NWFP Text Book Board
- Acted at numerous occasions as External Examiner in MSc, M.Phil and Ph.D. Thesis Examinations of students belonging to
  - Department of Human Nutrition, NWFP Agricultural University, Peshawar
  - Department of Food Science and Technology NWFP Agricultural University, Peshawar
  - Department of Food Science, College of Home Economics, Peshawar University.
  - Institute of Food Science and Technology, University of Agriculture, Faisalabad
  - Department of Biochemistry, Hazara University, Mansehra
  - Institute of Biotechnology and Genetic Engineering (IBGE), NWFP Agricultural University, Peshawar.

## **20. Contributions as Professor at UOL**

- Professor at University Institute of Dietetics and Nutrition Sciences (UIDNS), University of Lahore (UOL) since April 02, 2018 to October 04, 2020.
- Convener of “Research Projects Committee” at UOL, Lahore
- Member BOS of University Institute of Dietetics and Nutrition Sciences (UIDNS), University of Lahore (UOL)
- Organizer of 4 Project Formulation workshops for Faculty members of FAHS
- Represented UOL in the PHEC Curriculum Harmonization Meetings at University of Health Sciences, Lahore

## **21. Review and Refereeing of Research Projects and Publications**

- Member Technical Assessment Committee (TAC) of Pakistan Science Foundation
- Frequently act as reviewer of
  - PSF funded projects
  - HEC funded projects
  - PARC-ALP funded projects
  - US AID funded projects
  - Punjab Agriculture Research Board (PARB)
- Frequently act as referee for several Scientific Journals for evaluation of research papers
- Reviewer of abstracts submitted for the 1st Annual Health Research Conference organized by Pakistan Health Research Council (PHRC) in Islamabad on 24-25 September 2018

## **22. Contributions in Quality Management at NIFA, Peshawar**

- During 2005, NIFA Management decided to establish Quality Management System (QMS) in the institute. I was given the additional responsibility of Quality Management Representative (MR).
- I got ISO-9001:2000 Lead Auditor training in 2006 and lead NIFA to become the first ISO-9001:2000 Certified research institute of the province in 2008. Since then we have been maintaining the ISO certified status without break.
- I also got trained for quality improvement training “Six Sigma Green Belt”
- Initiated efforts to obtain ISO-17025 Accreditation for the Institute. The document infrastructure for that quality standard had already been developed at the time of my retirement.

## **23. Experience and Contributions to Food Fortification Programs in the Country**

- Member National Technical Sub-committee on Food Fortification Program, Ministry of Health, Government of Pakistan
- Member Technical Advisory Committee for GAIN funded National Wheat Flour Fortification Program (2007-2010)
- Member National Fortification Alliance (NFA), Ministry of Health

- Organized National Seminar on Iron Fortification of roller milled wheat flour in Pakistan on 20 August 2002
- Principal Investigator of the stability and acceptability components of the MI funded research project on Iron fortification of wheat flour (2003-4)
- Provided technical support to MI & Nutrition Cell P&D Islamabad in feasibility studies for production of iron fortified wheat flour in different flour mills at Peshawar, Islamabad and Faisalabad
- Team Member of IAEA RCA Project on “Monitoring of food fortification programmes using nuclear techniques”
- Principle Investigator of MI funded research project “Stability of iodine in iodized salt in different packing materials under different climatic conditions”
- Group Leader for Survey of iodine contents of iodized salt in Pakistan
- Group Leader for Urinary iodine contents of inhabitants of iodized salt intervention area
- Development of Rapid Test Kits (RTKs) for spot testing of iodized salt
- Development of improved buffer based Rapid Test Kits (RTKs) for spot testing of iodized salt – applicable to all types of salt
- Development of Iron Spot Test Kits for detection of iron fortified wheat flour
- Development of an improved iron Spot Test Kit based on double chromogen principle
- Development of spot test kit for detection of vitamin A in edible oil and ghee
- Provided Technical Support to the Project Management Unit of the ministry of health on flour fortification in connection with development of QA/QC for the programme and standard development (2004-2010).
- Acted as resource person in the National workshops at Peshawar, Karachi and Lahore (2010) for legislation and consensus building on wheat flour fortification program, Project Management Unit of GAIN funded National Wheat Flour Fortification Program (2007-8)
- Analysed fortified wheat flour samples received from different mills under MI funded “Commercial Wheat Flour Fortification Project, (CWFFP)” and provided technical support to the program (2007-8)
- Analysed fortified wheat flour samples received from different mills under GAIN funded “Commercial Wheat Flour Fortification Project, (NWFFP)” and providing technical guidance to the program (2007-2010).

- Acted as Resource Person in several Refresher Trainings on “Wheat Flour Fortification Process and QA/QC for Wheat Flour Fortification” One Day Training Workshop for Food Department AJ & K and Flour Mills Staff on organized by Micronutrient Initiative (MI) and AJK Food Department at Islamabad during 2014 to 2016
- Organized in collaboration with MI Pakistan the Dissemination Workshop of Research Study Stability of Iodine in Iodized Salt in Different Packing Materials under Different Climate Conditions, Marriott Hotel, Islamabad 1<sup>st</sup> March 2016.
- Organized the 4 one-day training courses for Technicians in Public Health Laboratories on “Detection of Iodine in Salt through Titration” at NIFA Peshawar on the request from Directorate General Public Health, Khyber Pakhtunkhawa, Peshawar during 2011 to 2014.
- Jointly organized with PMU, and acted as resource person in a workshop on “Harmonization of Lab Analysis Protocol for National Wheat Flour Fortification Project” held at PINSTECH, Islamabad and NIFA, Peshawar on September 11-12, 2007)
- Member Technical Oversight Committee (ToC) for Fortification Assessment Coverage Toolkit (FACT) Survey (2017-18) Ministry of Planning, Development & Reform (MPDR) with technical support from Global Alliance for Improved Nutrition (GAIN)
- Member Technical Core Committee Provincial Food Fortification Alliance Punjab (PFAP)
- Team Lead of the QA/QC component of GAIN funded national project on “Ensuring quality fortification within food distribution networks for vulnerable populations during/post covid in Pakistan

#### **24. Contributions as Consultant**

- i. Consultancy provided to the Nutrition Division NIH Islamabad for Project Data Evaluation and Report Writing (2008)
- ii. MI Consultant for Purchase and installation of Lab equipment for 7 Public Analyst Laboratories MI Agreement No. 10-0818-ZEBAUR - 07(December 2007 to May 2008)
- iii. Consultant for GAIN funded National Wheat Flour Fortification Program on “Writing report on the existing and potential status of legislation/s on iron fortification in the country” (2010)



- iv. GAIN Consultant for Assessment of Public Sector Laboratory Capacity & Capability to Conduct Micronutrient Testing, Food Quality & Safety Parameters, together with two consultants from Intertek. (August - September 2014)
- v. National Consultant to Food Fortification Program on “TA for Strengthening Quality Control at Public Sector Laboratories” 2017 On-going.
- vi. Consultant to National Fortification Alliance (NFA) for “Development of Model/S for Wheat Flour Fortification in Small Scale Grinders (Chakkies) in Pakistan” under support by WFP to NFA Nutrition Wing, Ministry of NHR&C, NIH, Chak Shehzad, Park Road, Islamabad, Pakistan
- vii. Consultant for: Feasibility study for “Rice Fortification and Development of Model for Rice Fortification in Pakistan” under support by WFP to National Fortification Alliance (NFA), Nutrition Wing, Ministry of NHR&C, NIH, Chak Shehzad, Park Road, Islamabad, Pakistan (2020-21)
- viii. Consultant for GAIN - GCUF project entitled “Ensuring Quality Fortification within Food Distribution Networks for Vulnerable Populations during/post COVID in Pakistan” (2021)
- ix. Consultant for NUTRITION INTERNATIONAL, on CAPACITY GAP ANALYSIS OF GOVERNMENT'S REFERENCE LABORATORIES, RFP No: 10-2169, (2021)
- x. Consultant for NUTRITION INTERNATIONAL, on Training on Oil Fortification and Quality Assurance & Quality Control (QAQC), RFP No: 10-2168 (2021)
- xi. Capacity Building Trainings for Lab Technicians of Food Departments/ Authority Staff on Testing of Fortified Samples in all Provinces, ISG 2019